

REMARKS

Claims 1-30 are presented for consideration, with Claims 1, 10-12, 18-21 and 26-30 being independent.

Editorial changes have been made to the specification. In addition, independent Claims 1, 12, 20, 21 and 28 have been amended to further distinguish Applicants' invention from the cited art.

Initially, Applicants note with appreciation that Claims 10, 11, 18, 19, 26, 27, 29 and 30 are indicated as containing patentable subject matter and would be allowed if placed in independent form. Claims 26 and 27 have additionally been amended to provide proper antecedent basis for the activation process. Based on this indication, these claims have been amended and are now presented in independent form. Claims 10, 11, 18, 19, 26, 27, 29 and 30 are thus submitted to be allowable.

Claims 20-27 were rejected under 35 U.S.C. §112, second paragraph, as allegedly being indefinite. Particular attention was paid to the grounds for this rejection as set forth on page 2 of the Office Action in amending Claims 20, 21, 26 and 27 as shown above. It is submitted, therefore, that all the claims are in compliance with the particularity and distinctness requirements of the statute. Accordingly, reconsideration and withdrawal of the rejection under 35 U.S.C. §112, second paragraph, is respectfully requested.

Claims 1, 3-7, 9, 20, 21, 23 and 25 stand rejected under 35 U.S.C. §103 as allegedly being obvious over Iwasaki (JP '467) in view of Nakanishi (JP '018). In addition, Claims 2, 22 and 28 are rejected as allegedly being obvious over those patents and further in view of Mitome (EP '916), and Claims 8 and 24 are rejected as allegedly being obvious over Iwasaki, Nakanishi and Kawade (JP '596). Finally, Claims 12-17 stand rejected as allegedly

being obvious over Nakanishi alone or with Mitome and Kawade, and further in view of Ikeda.

These rejections are respectfully traversed.

Claim 1 of Applicants' invention relates to a method of manufacturing an image display, and includes the step of seal-bonding a first member having an electron-emitting device and a second member having a phosphor which is irradiated with an electron emitted from the electron-emitting device to emit light and an anode to which a first voltage higher than a second voltage applied to the second electron-emitting device is applied in a seal-bonding chamber in which a vacuum atmosphere is realized. In addition, an aging step for aging the electron-emitting device is performed without applying the first voltage to the anode, before the seal-bonding step.

Claim 12 relates to a method of manufacturing an image display apparatus that includes the step of seal-bonding a first member having a plurality of electron-emitting devices and a second member having a phosphor and an anode to which a first voltage higher than a second voltage applied to the electron-emitting devices is applied in a vacuum seal-bonding chamber. Before the seal-bonding step, a characteristic adjustment step of selectively adjusting characteristics of the plurality of electron-emitting devices is performed without applying the first voltage to the anode.

Claim 20 relates to a method of manufacturing an image display apparatus with the step of seal-bonding a first member having an electron-emitting device subjected to an activation process and a second member having a phosphor and an anode to which a first voltage higher than a second voltage applied to the electron-emitting device is applied to emit light in a seal-bonding chamber having a vacuum atmosphere. Before the seal-bonding step, a voltage

application step of applying a voltage to the electron-emitting device subjected to the activation process is performed without applying the first voltage to the anode.

In Claim 21, a method of manufacturing an image display apparatus includes seal-bonding a first member having an electron-emitting device having a carbon and/or carbon compound at and/or near an electron-emitting portion and a second member having a phosphor which is irradiated with an electron emitted from the electron-emitting device to emit light and an anode to which a first voltage higher than a second voltage applied to the electron-emitting device is applied in a seal-bonding chamber in a vacuum atmosphere. Additionally, before the seal-bonding step, a voltage application step of applying a voltage to the electron-emitting device having carbon and/or a carbon compound at the electron-emitting portion and/or near the electron-emitting portion is performed without applying the first voltage to the anode.

Finally, in Claim 28 a method of manufacturing an image display apparatus includes a step of seal-bonding a first member having an electron-emitting device and a second member having a phosphor which is irradiated with an electron emitted from the electron-emitting device to emit light and having an anode to which a first voltage higher than a second voltage applied to the electron-emitting device is applied in a seal-bonding chamber in which a vacuum atmosphere is realized. Before the seal-bonding step, a voltage application step of applying, to the electron-emitting device, a voltage having a voltage value larger than a normal driving voltage value applied to the electron-emitting device at an image display operation is performed without applying the first voltage to the anode.

In accordance with Applicants' invention, a processing step, such as aging, characteristic adjustment, or voltage application, is applied without applying a first higher voltage to the anode, before the seal-bonding of the first and second members. In this manner,

the processing step can be performed and the integrity of the vacuum atmosphere in the bonding chamber will be maintained. Support for the amendments to the claims can be found, for example, on page 7, line 9 through page 12, line 22 of the specification.

The primary citation to Iwasaki relates to a method for forming an image forming device and is relied upon primarily for disclosing an aging step for stabilizing a driving current of the image forming device.

The secondary citation to Nakanishi relates to a manufacturing process for an image forming device, and is relied upon for disclosing a process of conducting an activating and stabilizing step before seal-bonding a face plate and an emitter plate.

Without conceding to the propriety of combining Iwasaki and Nakanishi in the manner proposed in the Office Action, it is submitted that such a combination still fails to teach or suggest, among other features, performing a processing step without applying to the anode a first voltage, before the seal-bonding step. Accordingly, reconsideration and withdrawal of the rejection of Claims 1, 3-7, 9, 20, 21, 23 and 25 under 35 U.S.C. §103 is respectfully requested.

The tertiary citation to Mitome relates to an electron source manufacturing method and was cited for its teaching of connecting a plurality of processing chambers with vacuum interlocks. Mitome fails to compensate, however, for the deficiencies in Iwasaki and Nakanishi as discussed above. Accordingly, without conceding the propriety of combining Iwasaki, Nakanishi and Mitome in the manner proposed in the Office Action, such a combination still fails to teach or suggest Applicants' claimed invention. Therefore, reconsideration and withdrawal of the rejection of Claims 2, 22 and 28 under 35 U.S.C. §103 is respectfully requested.

Kawade relates to an electron-emitting element drive method and was cited for its teaching that the aging/activation voltage is greater than the normal operating voltage. Kawade fails, however, to compensate for the deficiencies in Iwasaki and Nakanishi as discussed above. Therefore, even assuming, arguendo, Iwasaki, Nakanishi and Kawade could have been combined in the manner proposed in the Office Action, such a combination still fails to teach or suggest Applicants' claimed invention. Accordingly, reconsideration and withdrawal of the rejection of Claims 8 and 24 under 35 U.S.C. §103 is respectfully requested.

Lastly, the tertiary citation to Ikeda relates to an electron-emitting device which selectively adjusts characteristics thereof. Ikeda fails, however, to compensate for the deficiencies in Iwasaki, Nakanishi, Mitome and Kawade as discussed above. Therefore, even the proposed combination of art still fails to teach or suggest Applicants' claimed invention. Thus, reconsideration and withdrawal of the rejection of Claims 12-17 under 35 U.S.C. §103 is respectfully requested.

Accordingly, it is submitted that Applicants' invention as set forth in independent Claims 1, 12, 20, 21 and 28 is patentable over the cited art. In addition, dependent Claims 2-9, 13-17 and 22-25 set forth additional features of Applicants' invention. Independent consideration of the dependent claims is respectfully requested.

In view of the foregoing, reconsideration and allowance of this application is deemed to be in order and such action is respectfully requested.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,



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